

Module 2 Lesson 2

Transcript

Today's lesson will be short and sweet. We're talking about research and genetics in obesity. To take a sneak peek at what's to come, we're going to touch on the role of genetics in obesity, what the current research suggests and, of course, how to support your clients in living nutritious lives with respect to their genetic profile.

You can say you got a broken arm because you fell and then a bone broke. You can say you have a crooked nose because your dad has a crooked nose and yours is just like his. You can believe you are a chocoholic, like me, who comes from a long line of chocoholics. But when you're obese, how much of your obesity is really because of your genetics? How much of it is your environment? You just can't resist the candy jar on your assistant's desk. How much of your obesity is because you have always eaten whatever you want and never gave it much thought? We know that behaviors, genes, and environment all play a role in obesity. To prove the point, we can name a few skinny-fat folks who lucked out in the gene pool. And a few people probably come to mind whose behaviors have earned them a spot on the runway, but their DNA didn't get the message.

How much can we attribute obesity to your genes? We actually don't have an answer to that question yet. You know nutrition research is changing all the time. Research says that the obesity epidemic is due to the surplus in our food supply, but we know it's very complicated. We're taking in too many unhealthy calories and also we're too sedentary. Our genes are not to blame for the obesity epidemic.

However, genes do play a role. We know that because not everyone who eats too much and sits too much becomes obese. On the flip side, there are certainly obese people who have super healthy active lifestyles. And of those who become obese, the distribution of fat is most likely genetically linked because we don't all gain in the same places. On top of that, some of us become obese and have high risk factors and others not so much.

Race and ethnicity further complicate this question. Honestly, we see from twin studies, family studies, and trending research that there are a gene and environmental relationship that make the study of obesity really complicated. There are 50 genes that are strongly associated with obesity, but the environment plays such a strong role it's hard to determine protective genes versus those that predispose us to obesity. It's really fascinating, right? I know you all love this stuff like me, too.

Genetic testing is really young and green, so we're not finding genealogy to be a predictor of obesity. But family history, which I hope you ask about when you're talking to clients, is a pretty good indicator to tell us if people are at risk for diabetes, cardiovascular disease, or other conditions. We know the fat mass and obesity-associated gene, FTO, is found in 43% of the obese population. The FTO gene makes it hard for people to limit their caloric intake. It can contribute to increased hunger, increased calorie intake, reduce satiety, increased predisposition to being sedentary, and increased tendency to store body fat. I know, now all of your clients will want to be tested for the FTO gene. But actually, it's really not that useful of information because the intervention and treatment are the same whether you have the gene or not.

My bottom line with the genetics of obesity is all about focusing on environment and behaviors. BMI and other tools to measure obesity are not as important as getting your clients to live their most nutritious lives. You can be fit and healthy and have genes that predispose you to being overweight. So looking at what you can control, your most empowering tool, that's really most important. Don't lose sight of that. Work on that with your clients.

So to do a quick recap of today's lesson, the research on the connection between genetics and obesity is not clear cut, like so many things in nutrition, right? Behaviors, genes, and environment all play a role in obesity. BMI and measures of obesity are not as important as the lifestyle choices your clients are making so continue to focus on those healthy habits with your clients, those pillars of a nutritious life. I'll see you in the next lesson.